

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1-7. (Canceled)
8. (Currently Amended) In a wireless communication system, a method comprising:
estimating a channel condition over a first time window including calculating an average channel condition and a variance channel condition;
comparing the estimated channel condition to a first threshold value;
determining a first transmission rate for transmission of quality messages and a second transmission rate for transmission of differential indicators based on the comparison;
transmitting quality messages at the first transmission rate; and
transmitting differential indicators independently of quality messages at the second transmission rate, wherein the second transmission rate is greater than the first transmission rate.
9. (Original) The method as in claim 8, wherein the first time window is dynamically adjusted based on operation of the system.
10. (Canceled)
11. (Currently Amended) A wireless apparatus, comprising:
means for estimating a channel condition over a first time window including calculating an average channel condition and a variance channel condition;
means for comparing the estimated channel condition to a first threshold value;
means for determining a first transmission rate for transmission of quality messages and a second transmission rate for transmission of differential indicators based on the comparison;
means for transmitting quality messages at the first transmission rate; and
means for transmitting differential indicators independently of quality messages at the second transmission rate, wherein the second transmission rate is greater than the first transmission rate.
12. (Canceled)
13. (Previously Presented) A wireless apparatus, comprising:
processing unit, operative for executing computer-readable instructions; and
a memory storage unit storing a plurality of computer-readable instructions for:
generating quality messages at a first frequency and differential indicators at a second frequency, the quality messages providing information on the quality of a

communication link, wherein the differential indicators track a quality metric between successive quality messages and wherein the second frequency is greater than the first frequency;

generating a parity check for each of the quality messages; and
transmitting the quality messages at the first frequency and differential indicators at the second frequency.

14. (Canceled)
15. (Currently Amended) A wireless apparatus, comprising:
processing unit, operative for executing computer-readable instructions; and
a memory storage unit adapted to store a plurality of computer-readable instructions for:
estimating a channel condition over a first time window including calculating an average channel condition and a variance channel condition;
comparing the estimated channel condition to a first threshold value;
determining a first transmission rate for transmission of quality messages and a second transmission rate for transmission of differential indicators based on the comparison;
transmitting quality messages at the first transmission rate; and
transmitting differential indicators at the second transmission rate independently of quality messages, wherein the second transmission rate is greater than the first transmission rate.
16. (Currently Amended) In a wireless communication system, the wireless communication system supporting a plurality of carriers, a method comprising:
determining an average channel condition among the plurality of carriers including calculating an average channel condition and a variance channel condition;
comparing the average channel condition to a first threshold value;
determining a first transmission rate for transmission of quality messages and a second transmission rate for the transmission of differential indicators based on the comparison;
transmitting quality messages at the first transmission rate; and
transmitting differential indicators at the second transmission rate independently of quality messages, wherein the second transmission rate is greater than the first transmission rate.
17. (Original) The method as in claim 16, further comprising:
assigning a weight to each of the plurality of carriers, wherein the average channel condition is a weighted average.
18. (Previously Presented) A wireless apparatus, comprising:
processing unit, operative for executing computer-readable instructions; and

a memory storage unit storing a plurality of computer-readable instructions for:
determining a best channel condition associated with a first frequency; and
generating a quality message, the quality message including a quality indicator
and a frequency indicator, the frequency indicator identifying the first frequency, wherein
the frequency indicator is a pointer to select the first frequency from a plurality of
predetermined frequencies; and
generating differential indicators separately from the quality message.

19. (Canceled)
20. (Currently Amended) A wireless apparatus, comprising:
a quality measurement unit configured to estimate a channel condition over a first time window including calculating an average channel condition and a variance channel condition;
a differential analyzer configured to compare the estimated channel condition to a first threshold value; and
a controller configured to determine a first transmission rate for transmission of quality messages and a second transmission rate for transmission of differential indicators based on the comparison, the differential analyzer further configured to generate quality messages at the first transmission rate, the differential analyzer further configured to transmit differential indicators at the second transmission rate independently of quality messages, wherein the second transmission rate is greater than the first transmission rate.
21. (Previously Presented) The wireless apparatus of claim 20, wherein the first time window is dynamically adjusted based on operation of the system.
22. (Canceled)
23. (Previously Presented) The wireless apparatus of claim 11, further comprising:
means for dynamically adjusting the first window based on operation of the system.
- 24.-27. (Canceled)
28. (Currently Amended) A non-transitory storage medium having stored thereon processor-executable software instructions configured to cause a processor to perform steps comprising:
estimating a channel condition over a first time window on a system including calculating an average channel condition and a variance channel condition;
comparing the estimated channel condition to a first threshold value;
determining a first transmission rate for transmission of quality messages and a second transmission rate for transmission of differential indicators based on the comparison;
transmitting quality messages at the first transmission rate; and

transmitting differential indicators at the second transmission rate independently of quality messages, wherein the second transmission rate is greater than the first transmission rate.

29. (Previously Presented) The non-transitory storage medium of claim 28, wherein the tangible storage medium has stored thereon processor-executable software instructions configured to cause a processor to perform further steps comprising dynamically adjusting the first time window based on operation of the system.

30. (Canceled)

31. (Currently Amended) In a wireless communication system, a method comprising:
estimating a channel condition over a first time window including calculating an average channel condition and a variance channel condition;
comparing the estimated channel condition to a first threshold value;
determining a transmission rate for transmission of quality messages based on the comparison;
transmitting quality messages at the transmission rate;
generating wherein quality messages are generated at a first frequency, the quality messages providing information on the quality of a communication link, generating a parity check is generated for each of the quality messages, and, generating differential indicators are generated at a second frequency, the differential indicators indicating changes in the quality of the communication link, wherein the second frequency is greater than the first frequency.

32. (Previously Presented) The method of claim 31, wherein each quality message includes carrier to interference information of a received signal at a receiver.

33. (Previously Presented) The method of claim 31, wherein each differential indicator is at least one bit.

34. (Previously Presented) The method of claim 31, wherein the quality messages are transmitted via a gated channel.

35. (Previously Presented) The method of claim 31, wherein the differential indicators are transmitted via a continuous channel.

36. (Canceled)

37. (Currently Amended) The method of claim [[36]] 31, wherein the first time window is dynamically adjusted based on operation of the system.

38. (Canceled)

39. (Previously Presented) The method of claim 31, comprising:
determining an average channel condition among a plurality of carriers;
comparing the average channel condition to a first threshold value;
determining a transmission rate for transmission of quality messages based on the comparison; and
transmitting quality messages at the transmission rate.
40. (Previously Presented) The method of claim 39, further comprising:
assigning a weight to each of the plurality of carriers, wherein the average channel condition is a weighted average.
41. (Currently Amended) A remote station apparatus comprising:
means for estimating a channel condition over a first time window;
means for comparing the estimated channel condition to a first threshold value;
means for determining a transmission rate for transmission of quality messages based on the comparison;
means for transmitting quality messages at the transmission rate;
~~a quality measurement unit~~ means for iteratively measuring link quality of a communications link;
~~a quality message processing unit~~ means for generating a quality message at a first frequency based on the measured link quality and for generating a parity check corresponding to the quality message; and
~~a differential analyzer~~ means for determining changes in the measured link quality and for generating differential indicators at a second frequency, the differential indicators indicating changes in the quality of the communication link, wherein the second frequency is greater than the first frequency.
42. (Previously Presented) The remote station of claim 41, wherein the link quality is measured as carrier to interference of a received signal.
43. (Canceled)
44. (Previously Presented) A base station comprising:
receive circuitry operative to receive signals on a reverse link of a wireless communication system for processing voice communications and packet-switched communications, the signals including a quality message with a parity check at a first rate, and differential indicators at a second rate, the quality message periodically providing a quality metric of a forward link, wherein the differential indicators track the quality metric between successive quality messages and wherein the second rate is greater than the first rate;

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a memory storage unit operative to store a quality message received on the reverse link;
and

a differential analyzer to update the quality message stored in the memory storage unit in
response to the differential indicators and the parity check.